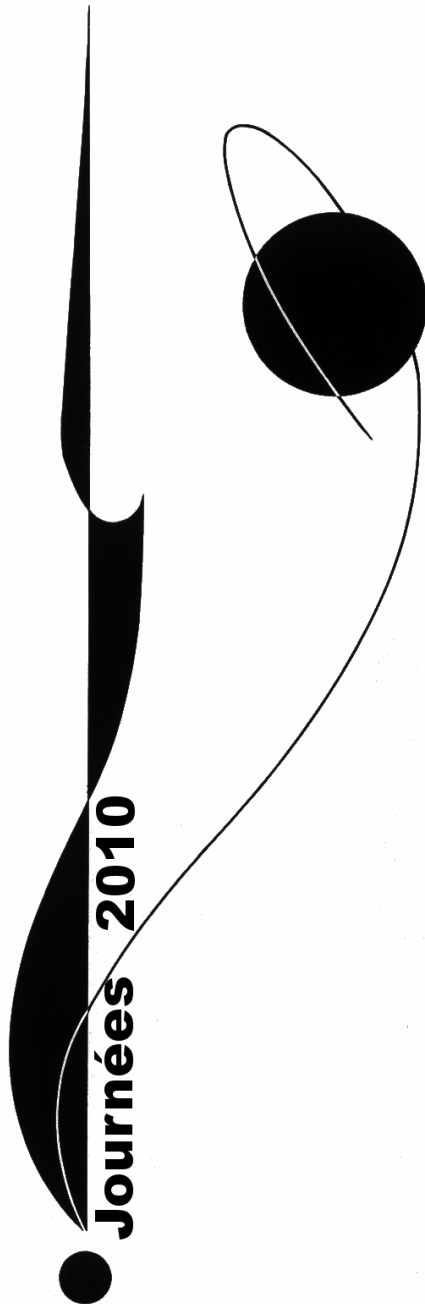


Journées 2010

« Systèmes de référence spatio-temporels »



*New challenges
for reference systems
and numerical standards
in astronomy*

PROGRAMME

Observatoire de Paris

20-22 September 2010

Monday 20 September 2010
(at ENS: amphitheatre Dussane)

9:15-9:30: Opening of the Journées 2010

Welcome from N. Dimarcq, Director of Department SYRTE of Paris Observatory, Chair of the LOC
Introduction to the Journées 2010 by N. Capitaine (Chair of the SOC)

9:30-11:00: Session 1 - The astronomical constants, SI units and future developments in numerical standards

(Chair: V. Dehant)

Luzum B., Hilton J. and NSFA WG (invited): *IAU Working Group on Numerical Standards for Fundamental Astronomy: the second triennium*

Petit G. (invited): *The new edition of the IERS Conventions: conventional reference systems and constants*

Jacobson R., Folkner W., Taylor A., Konopliv S., Williams J. G., Brozovic M.: *Planetary System GMs in the JPL Planetary Ephemerides*

Hohenkerk C.: *SOFA – status report, a review and a look to the future*

Capitaine N., Guinot B., Klioner S.: *Proposal for the re-definition of the astronomical unit of length through a fixed relation to the SI metre.*

Vondrák J., Capitaine N., Wallace P.T.: *Some new thoughts about long-term precession formula*

11:00-11:30: Coffee-break

11:30-13:00: Session 2 - Solar system ephemerides and their comparison

Special session organized in coordination with IAU Commission 4 (Ephemerides)

(Chair: C. Hohenkerk and J. Vondrák)

Session 2 Introductory remarks (provided by G. Kaplan, President, IAU Commission 4)

Fienga A., Manche, H., Kuchynka, P., Laskar, J., Gastineau, M. (invited): *INPOP, Intégration Numérique Planétaire de l'Observatoire de Paris*

Folkner W. (invited): *Recent developments in planetary ephemeris observations*

Pitjeva E. (invited): *EPM - Ephemerides of planets and the Moon of IAA RAS: their model, accuracy, availability*

Laskar J., Fienga A., Gastineau M., Manche H.: *INPOP, a 1 Million year planetary ephemeris*

Kudryavtsev S.: *Development of long-term numerical ephemerides of major planets to analytical series*

13:00-14:00: Lunch break

14:00-16:00: Session 2 (continuation)

(Chair: C. Hohenkerk and J. Vondrák)

Yagudina E., Krasinsky G.A., Prokhorenko S.O.: *New version of ERA-EPM Moon theory*

Manche H., Fienga A., Laskar J., Gastineau M., Bouquillon S., Francou G., Kuchynka P.: *LLR residuals of the latest INPOP solution and constraints on post-Newtonian parameters*

Dehant V., Oberst J., Nadili R.: *Geodesy instrument package on the Moon for improving our knowledge of the Moon and the realization of Reference Frames*

Pashkevich V., Eroshkin G.I.: *Application of the spectral analysis methods for the investigation of the Moon rotation*

Hilton J., Hohenkerk C.: *A comparison of the high accuracy Planetary Ephemerides DE421, EPM2008, and INPOP08*

Discussion

(at Observatoire de Paris: Salle Cassini)

16:15-16:45: Coffee-break

16:45-18:30: POSTER SESSION introduced by N. Capitaine and J. Souchay

18:30-20:00: Cocktail with a Welcome from D. Egret, President of Paris Observatory

Tuesday 21 September 2010
(at ENS: amphitheatre Dussane)

9:00-11:00: Session 3 - Progress in astrometric catalogs in optical and radio wavelengths
(Chair: K. Johnston)

Zacharias N. & Gaume R. (invited): *UCAC and URAT: optical astrometric catalog observing programs*

Souchay J. (invited): *The Large Quasar Astrometric Catalog (LQAC) and the densification of the ICRF through the LQRF (Large Quasar Reference Frame)*

Andrei A., Bucciarelli B.: *Parallaxes of Southern Extremely Cool objects I: Targets, proper motions and first results*

Bourda G., Charlot P., Collioud R., Porcas R., Garrington S.: *Towards a VLBI catalog of optically-bright extragalactic radio sources for the alignment of the radio frame with the future Gaia frame*

Damljanovic G.: *Comparison of the proper motions in declination of four catalogues via 807 Hipparcos stars*

Yatskiv Ya, Fedorov P., Akhmetov V.: *The XPM catalogue as a realisation of the extragalactic reference system in optical and near infrared wavelengths*

Maigurova N.: *Optical positions of ICRF sources using UCAC3 reference stars*

Discussion

11:00-11:30: Coffee-break

11:30-12:30: Session 4 - Recent developments in theory and observation of Earth rotation and related reference systems

(Chair: Ya Yatskiv)

Brzezinski A. (invited): *Diurnal excitation of Earth rotation estimated from recent geophysical models*

Gross R. (invited): *Observing and modeling long-period tidal variations in polar motion*

Altamimi Z. (invited): *Examination of ITRF2008 results*

13:00-14:00: Lunch break

14:00-15:30: Session 4 (continuation)

(Chair: A. Brzezinski)

Petrov S., Bashakova, E., Fetisov S., Smirnov S., Trofimov D.: *Subdiurnal polar motion from GNSS observations*

Boehm S., Schuh H.: *Response of the Earth system to zonal tidal forcing examined by VLBI based dUT1 variations*

Chapanov Y., Vondrák J., Ron C.: *Centennial cycles of the solar activity and Earth rotation*

Escapa A, Getino J., Miguel D., Ferrándiz. J.M.: *Influence of the inner core geopotential variations on the rotation of the Earth*

Ivanova T., Brumberg V.: *On Solution of the three-axial Earth's rotation problem*

Boucher C.: *A refined definition of the International Terrestrial Reference System*

Colout D., Bernard E., Collilieux X.: *Influence of station referencing on the quality of EOP time series*

15:30-16:00: Coffee-break

16:00-17:45: Session 4 (continuation)

(Chair: R. Gross)

Nastula J., Pasnicka M., Kolaczek B.: *Comparison of the hydrological excitation functions HAM of polar motion for the period 1980.0-2009.0*

Kosek W., Popíski W., Niedzielski T.: *Wavelet based comparison of high frequency oscillations in the geodetic and fluid excitation functions of polar motion*

Malkin Z.: *Comparison of CPO and FCN empirical models*

Nilsson T., Boehm J., Schuh H.: *Impacts of the 2010 Chile earthquake on Earth rotation*

Pavloskaya N., Petrov S.: *Thermal S1-tide in the atmospheric angular momentum and polar motion*

Schindelegger M., Boehm J., Schuh H., Salstein D.: *High-resolution atmospheric angular momentum functions from different ECMWF data classes*

Stamatakos N., Luzum B., McCarthy D.D.: *Recent Improvements in IERS Rapid Service/Prediction Center Products*

Zotov L.: *Analysis of Chandler wobble excitation, reconstructed from observations of the Earth's polar motion*

Tuesday 21 September 2010
(at Observatoire de Paris: Salle Cassini)

18:30-19:30: Exhibition from archives of Paris Observatory library

19:30-22:00: Conference dinner (Salle Cassini)

“Best Poster Award”

Wednesday 22 September 2010
(at ENS: amphitheatre Dussane)

9:00-11:00: Session 5 – Pulsars timing, relativity and time transfer

(Chair: J. Souchay)

Kopeikin S. (invited): *An extension of the IAU framework for reference systems*

Hobbs G. (invited): *Developing a pulsar-based time scale*

Rodin A.: *Ensemble pulsar time scale*

Korotkova N., Ilyasov Yu. P., Pshirkov M. S.: *IPTA and sensitivity of radio telescopes*

Cognard I.: *High precision pulsar timing: Nancay and the European Pulsar Timing Array*

Gusev A.: *Chandler wobble and Free Core Nutations of single pulsar*

Soffel M., Klioner S., Gerlach E.: *About the MacCullagh relations in Relativity*

11:00-11:30: Coffee-break

11:30-12:30: Session 5 (continuation)

(Chair: M. Soffel)

Xie Y., Kopeikin S.: *Post-Newtonian mechanics of the Earth-Moon system*

Teysandier P.: *Post-post-Newtonian light propagation without integrating geodesic equations*

Mouret S.: *Test of General Relativity with the Gaia mission*

Lamine B., Courty J.-M., Reynaud S., Jaekel M.-T.: *Testing gravity law in the solar system*

Discussion

12:30-12:45: Closing of the Journées 2010

Announcement of the Journées 2011

Wednesday 22 September 2010
(at Observatoire de Paris)

13:00-14:00: Lunch break (at the canteen of Paris Observatory)

14:00-16:30: WG and task group meetings (Meeting rooms of Paris Observatory)